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THE CADRE DIVISION CONCEPT - THE 106TH INFANTRY DIVISION REVISITED -

BY

Colonel David R. Durr United States Army

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ABSTRACT

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U.S. Army planners are currently considering the use of cadre divisions in future force structures. This paper provides a review of a World War II cadre division, the 106th Infantry Division, and analyzes its formation and performance in the Battle of the Bulge, for insights in fielding cadre units. While manpower considerations suggest cadre divisions may play a vital role in national defense, their success or failure in combat will hinge on a number of factors. Time has been identified as a critical factor in preparing a cadre division for deployment by Pentagon planners. But the 106th Division had almost two years to prepare for combat and still failed. division was beset by poor internal leadership, personnel turbulence, lack of training in crucial areas, misunderstanding as to how to introduce it into the combat zone, lack of appreciation for technology on the part of its leaders, poor intelligence, and inappropriate leadership from the gaining Corps. Significantly, many of these factors were intertwined, compounding the complexity of fielding this type organization. Cadre divisions may continue to play a vital role in national defense, however, planners will have to carefully analyze the entire process for fielding cadre divisions and insure the mistakes with the 106th Division are not repeated.

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THE CADRE DIVISION CONCEPT:
THE 106TH INFANTRY DIVISION REVISITED



AN INDIVIDUAL STUDY PROJECT

by

Colonel David R. Durr United States Army

Colonel Harry R. Yarger Project Adviser

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THE CADRE DIVISION CONCEPT: THE 106TH INFANTRY DIVISION REVISITED

PROBLEM STATEMENT

As the U.S. Army prepares to meet the defense challenges brought on by a rapidly changing world order, the Army Staff is once again faced with the aspect of preparing for possible global warfare in the midst of diminishing resources. One idea that is currently being reconsidered by Army planners is that of the cadre division as an option for expanding the force in times of national crisis.

The cadre division concept is one of creating late deploying replacement divisions from cadre staffed peacetime divisions. These units are then deployed to developed theaters. Such units can be drawn from the U.S. Army Reserve (USAR), the National Guard (ARNG), the Active Component, or a mixture of the above. Whatever the component of the division, the concept for today is the same as that used for fielding divisions in World War II--recruits are brought into a division to be trained by an existing cadre which is already trained in the art of war. While this method was used extensively to generate combat units during the last World War, there are those who would argue both for and against the success of these types of units in that conflict.

This paper examines the fielding and performance of one such unit, the 106th Infantry Division, during the Battle of the Bulge to gain perspective on the potential issues and problems of cadre

divisions. The purpose of this paper is not to re-fight the Battle of the Bulge, nor to examine the role of the 106th Infantry Division to determine that unit's contribution to the outcome of the battle. It does not try to fix the blame for the failure of the division under fire. Those stories have long since been told. The soldiers of the division did the best they could under the worst of battlefield conditions. Still unanswered however, is the question of why the division failed so totally in its first combat experience? fail because of enemy superiority, or as a result of disintegration? If the latter, why did they fail and what can we learn about adequately fielding effective combat divisions in the future? Was there one major reason for the division's failure or was the disintegration a combination of factors? This study examines the mobilization and fielding of the 106th Division to determine how these processes impacted on combat readiness and performance. The insights gained are then compared to current processes and appropriate recommendations provided.

THE BATTLE

On 16 December 1944, Hitler launched a major counter offensive using four armies, eleven army corps and thirty eight divisions, against the Allied Expeditionary Force, aimed at splitting the British and American Armies in the Ardennes, and with the final objective of capturing the port of Antwerp, Belgium. This assault took place along a 75-mile front, but it was nowhere more powerful than the sector

directly to the front of the 106th Infantry Divison. Within four days, two regiments of that division, surrounded and unable to communicate adequately with division headquarters, surrendered. The Schnee Eifel portion of what was to become known as the Battle of the Bulge, the area defended by the 106th Division, would go down in the annals of official American military history as "---the most serious reverse suffered by American arms during the operations of 1944-45 in the European theater."

The 106th Division replaced the 2d Infantry Division on 11-12 December 1944, occupying an area roughly from the village of Auw, Germany, in the north, to an area just south of the village of Grosskampenberg in the south. The northernmost regiments, the 422d, and the center regiments, the 423d, occupied the crest of the Schnee Eifel, a steep ridge along which ran fortifications of the Siegfried Line. The southernmost regiment, the 424th, was placed approximately five thousand yards from the Siegfried Line and joined the 28th Infantry Division boundary. All three regiments had the Our River their rear. Only limited road networks ran from rear areas to front lines, especially in the Schnee Eifel. In the north, from the 422d Regimental boundary to the corps boundary just north of the Losheim Gap, the 14th Cavalry Group was attached to the 106th Infantry Division and given responsibility for that area. Altogether, the 106th Infantry Division Commander, Major General Alan Jones, had seven infantry battalions and one reinforced calvary squadron to cover a twenty-one mile front. The 14th Cavalry Group alone was committed to screening a front of approximately 9000 yards, or nearly the frontage

prescribed for an entire infantry division. The 2d Battalion, 423d Infantry and the 1st Battalion, 424th Infantry were held out as a Division reserve. In addition to the four division artillery battalions, VIII Corps had designated eight field artillery battalions to be available to the 106th on call. While the firepower provided by these artillery battalions may have been more than adequate to support a division in a normal defensive position, the outcome of the battle would demonstrate that the 106th was spread far too thin over the long sector which it would be called upon to defend.

When the German attack began at 0530 on 16 December, the 1st SS Panzer Division, the 116th Panzer Division, and the 18th Divisions assaulted the 106th's front. Volksgrenadier The Cavalry Group on the division's northern flank was unable to stem the German advance and was forced to fall back repeatedly, surrendering to the enemy the vital road network critical for the extraction of the 422d and 423d Regiments from the Schnee Eifel. On the southern flank the 423d, the story was the same, and within a few days the two regiments were completely cut off and surrounded, with no maneuver ground and no terrain to give. They were however, still in good fighting condition, with relatively few casualties in either regiment adequate food, rifle ammunition, and a full basic load for their mortars. Thus, both regiments settled down to a perimeter defense the second night of the battle and waited for reinforcements and air drops of supplies expected on the 18th. Neither of these occurred and both regiments were instructed by division headquarters to move to the west and the vicinity of St. Vith, the following morning.

After destroying excess equipment, the regiments started the movement to St. Vith with regiments abreast at approximately 1000 hours, only to receive a further change in quidance from General Jones, instructing them to move to the village of Schonberg. Unfortunately, neither regiment could reach that objective and both regiments found themselves disorganized and cut off from each other at the end of the third day of fighting. What is more, they had begun to take heavy casualties during the day from German attacks and were now running dangerously low on food, water and ammunition. That night they made no effort to counterattack, a logical course of action for combat experienced troops, which in retrospect was a major mistake because the Germans surrounding them were few in number. following day, German strength grew and they became increasingly vulnerable to artillery, tank, and machine gun fire. They also tactical operational control and battalions and companies found themselves on their own in some cases. When air drops were not forthcoming and because reinforcements were not yet available in sufficient numbers to mount a relief effort, the end was obvious. the afternoon of the 19th of December, the two Infantry Regiments, alone, without communications, and not knowing the commander's intent, were surrendered to the enemy by their regimental commanders.

On the surface, the collapse of the 106th Infantry Division appears to have been the result of overwhelming force. However, other divisions came under attack by these same superior forces, without disintegrating. In analyzing the Battle of the Bulge, the

overwhelming enemy force remains the proximate cause of the defeat of the 106th Division, but the unit's lack of cohesiveness under fire as a result of a number of inherent weaknesses in the fielding of the division emerges as the ultimate cause of the collapse.

While the cadre division concept, that of bringing recruits into a division to be trained by an existing cadre, is a simple one, it is based on a number of planning assumptions that proved fatal for the 106th Division and may not be achieveable in the mobilization process today.

THE TRAINING OF THE DIVISION

On 23 January 1943, the 106th Division Commander, in a memorandum to the division cadre at Fort Leavenworth, Kansas, gave them the mission of preparing the division for "...direct entry into combat by 1 Dec 43". Unfortunately, training did not proceed on schedule as originally perceived by the Division Commander and the division found itself finishing up the Second Army maneuvers in Tennessee and moving to Camp Atterbury, Indiana, in March 1944, well behind the Division Commander's original concept of time required for training the unit. Even more telling is the fact that this division which had almost two years preparation time before it saw action in Europe proved unsuccessful in its first combat. Obviously there were many factors which combined to affect training and contribute to the division's disintegration. One of the most important was the personnel policies governing the manning of the unit.

In the spring of 1944 after the maneuvers, unit cohesion was virtually destroyed and much of the combat capability lost through personnel turbulence. Starting in April and continuing through August, more than 7,000 men were drafted out of the division, or sixty percent of its enlisted strength, to fill Army shortages. 3 Of this number, 6,000 went to Fort Meade as individual replacements for badly attrited overseas units. Charles Whiting, in his book Death of a <u>Division</u>, points out that the 6,000 overseas replacements were the best riflemen in the unit, a fact substantiated by at least one other author. 4 And to make matters worse, the replacements for these personnel came from a wide variety of sources. As one author described these replacements, there were "...1,200 men from the Army Specialized Training Program (ASTP), 1,100 from training as air cadets, 1,500 from other divisions not yet scheduled for overseas, and 2,500 from various disbanded small units, mostly service troops."5 This turbulence broke the training bond and destroyed unit cohesion as well as take those best prepared for combat.

The Army Specialized Training Program (ASTP) was an experiment to provide technical training in colleges for men with high IQs. Unfortunately, this program was ill fated because it had to be greatly curtailed as battlefield losses mounted and the requirement for additional manpower increased. It did, however, provide a degree of quality in soldiers for the divisions who received these personnel and while the same can be said for the air cadets, these pluses were more than offset by the poor quality of soldiers the division received from troops drafted out of other units and the fact that the cohesiveness

and/or expertise gained in previous training was lost.

By this point in the war, all stateside divisions were being affected by the personnel turbulence in similar ways and sought to retain their best soldiers if they could, while giving up their least desirable personnel. The commanding general of one division during this period of time commented on his new enlisted personnel by saying, "Replacements have been inferior in quality to the original fillers. Some of them have been kicked about from unit to unit." 6

The aggregate withdrawals from the division for all purposes actually totaled 12,442 since its activation! It was not just the sheer number of personnel taken from the division that impacted on it however, but the number of occurrences. One source points out that the division was asked to give up enlisted personnel on 14 separate occasions with the number of troops being transferred ranging from groups as small as 25 to as large as 2,125.7 Because of these numerous and sometimes large scale drafts, and because they were spread over a long period of time, the effect on training and cohesion was compounded.

while one can only speculate on the total impact that these large scale personnel changes had on the 106th Division as a whole, most of these new personnel obviously missed the bulk of the training the division received prior to its deployment, but most importantly, they were deprived of the opportunity of being integrated into the division for a lengthy period of time that would allow unit cohesion to occur, making individuals feel they were part of a team and teaching them to operate with confidence at a variety of operational levels. Thus,

the 106th Division went into battle with improperly trained teams at platoon and company levels and lacking the bond of interpersonal relationships and shared experience that make cohesive units.

The official Army history series points out that only 49% of the 106th Division's personnel participated in the Tennessee maneuvers, the single most significant training opportunity the division would have prior to its deployment. One source also points out that when these large scale transfers occurred,

Many of the officers and NCOs were left behind to train men transferred to the 106th from other units, some of whom had already earned their stripes. After running them through the various phases of infantry training, none of which was thorough enough to qualify them for being sent into combat in that they did not have the benefit of toughing-up that comes with 20 mile marches, hand-to-hand combat, living out in the open for field maneuvers, etc. It was just enough to enable the C.O. to check off each individual's record as having received the training specified....9

Objectively, it must be noted other divisions going overseas in this same time period suffered similar circumstances. However, in the case of the 106th Infantry Division, personnel turbulence was so significant and much of it occurred in such a short period of time immediately prior to deployment, that it is a wonder they performed as well as they did in combat.

The loss of officers, due to reassignment, was also higher during the period shortly prior to deployment than it was in any other division save one. The Army official history series states officer losses in all categories totaled 1,215 in the 106th Division. 10 While figures are not available to verify what positions these personnel filled, it is obvious that the greatest impact had to have been at the junior leadership level. The commanding general of another division reported during June 1944 for example, that "...there was not a second lieutenant in his command who had been on duty with the division in maneuvers seven months before. "11 The examination of personnel turbulence in the 106th Division reveals that Army personnel policies, driven by combat losses, were instrumental in negating the value of an extensive training period and destroyed the basis of unit cohesion among the enlisted and officers corps. The promise inherent to cadre divisions cannot be obtained without commitment to personnel policies which insure unit stability and cohesion.

MOVEMENT TO THE COMBAT ZONE

Another major event which impacted on the 106th Division's combat readiness was the movement to the combat zone. The division had left the states for England on 20 October 1945, where it had a brief rest while re-staging and drawing necessary equipment. Division personnel were told they would land at Le Havre on 2 December 1944 and proceed to Belgium, where they would relieve the 2d Division. The latter was being withdrawn in support of other operations and it was expected

that the 106th would have at least three weeks for additional training in one of the quietest sectors on the allied front before the next major allied offensive began. Allied commanders were convinced of success at this time and did not anticipate a major-German offensive.

On the surface, this 1ooked like effective planning. Unfortunately, the weather in the English Channel was too bad to land the division and the troops had to spend four sea-sick days on board their ships. Finally, when they did land, there was no transportation available for them and they had to spend another day and night waiting in the rain and the mud at a staging camp at Limesey. When transportation was finally arranged, the trucks were not the covered ones used for transporting men, but the open ones used for hauling supplies. Thus, the division's troops spent another two cold, rain soaked days being transported across France, Luxembourg, and Belgium. Then they had to wait another thirty-six hours in the cold while the transfer of the 2d Division area was coordinated.

The conclusion to be drawn from the 106th's movement to the combat zone is obviously that detailed planning for troop movement must be considered. Such planning must not only take into consideration the type of transportation provided, but the length time required to move personnel so that they arrive at deployment area in the best of condition. In the case of the it is obvious that planning for rest stops, sleep, and particularly protection from the severe weather were not considered, or if they were, were considered insignificant to operational requirements. trauma and disorientation resulting from dislocation is well studied today and must be a major consideration in deployment of such units.

The physical ordeal the soldiers of the 106th Division were subjected to in their movement to the front lines was the beginning of a major medical problem. Within only a few days of their arrival at their final destination, an unusually high number of trench foot cases were reported. It is known that the division was late in receiving its overshoes, but the fact that so many cases were reported so soon after their arrival indicates that exposure to the elements during the long trip from England probably created the problem. 12 In short, the trench foot epidemic did not begin on 11-12 December, but probably began while the soldiers were waiting in the mud at Limesey. What is known for sure is that 75 men in one regiment had to be sent to the rear with trench foot and it was suspected that as many as 20% of that unit's personnel had some type of foot problem. 13 effectiveness and cohesion were destroyed. Trench foot statistics, like the transportation glitches, are indicative of the types of problems that must be anticipated by planners and commanders in introducing troops into combat zones.

The significant foot problems among the division's personnel raises the question as to why soldiers were not better trained and equipped for the combat environment? There does not seem to be a simple answer to this question, and to be sure, some such casualties might be expected of any unit making a move to a new geographic location with severe weather conditions. Cold weather classes are designed to prevent just such occurrences as this, hence the logical assumption can be made that the soldiers were poorly trained and equipped, or at the very least, poorly supervised for the conditions

they would actually encounter. This suggests that for the cadre of a CADRE Division, in addition to having combat expertise, they must also be educated and trained in a much wider range of subjects dealing with the movement and welfare of troops.

Another contributing environmental factor which has been substantiated is that when the 106th personnel moved into the 2d Division positions,

"...the men discovered that the 2D Division had naturally taken out all their stoves. Many men stated that what stoves they had would not work sufficiently well to heat their huts and dry their shoes and sox." 14

Still, given proper cold weather training and emphasis in this area by junior leaders, it is hard to imagine so many casualties in such a short period of time. The lesson is clear. Personnel must be properly trained and adequately equipped when deploying to regions with hostile climates. And the gaining command must be prepared to receive and support large units that are not acclimated.

The personnel of the 106th Division demonstrated a lack of proper training in other ways too. Moving into the line and replacing the veteran 2d Division on 10-12 November, it was only a matter of days before they had set a regimental command post and a battalion motor pool afire. Notwithstanding the implications for operational security, this is the type of incident common among improperly trained or undisciplined troops in front line positions. As there are no indications that discipline was a major problem in the division, the

above actions can primarily be attributed to a lack of training for the environment into which they deployed. The study of the experience of the 106th Division in its movement to the combat zone highlights the need for planners and trainers to focus attention on the support and training required to deliver and integrate a healthy, functioning division into a theater of operations.

COMBAT INTEGRATION

The introduction and integration of new units into combat in a theater is a delicate task and here again the experience of the 106th Division provides valuable insight. In fairness, it must be pointed out that the decision to place the 106th in that section of the line was made in part to give it time to continue its training program, and in part to free the veteran 2d Division for participation in a planned attack on Roer River Dams. It was common practice at the time to assign new units to quiet sectors and was probably a valid practice, for one Army historian, John Sloan Brown, in his book <u>Draftee Division</u>, points out that divisions with retraining periods overseas, in quiet sectors, seem to have performed better in their first major battles. 15 As a result of the need for secrecy however, the 106th Division was directed by Corps headquarters to relieve the 2d Division man for man with the obvious intention of keeping the change and the Roer offensive, a secret from the Germans.

Despite Mr. Brown's conclusion about unit performance in World War II, modern planners must perceive retraining in theater as a

bonus——not a planning assumption. The experience of the 106th Division vividly illustrates two important points. First, any combat zone does so at the risk of sudden division deploying to a decisive engagement with the enemy. Thus, while the concept of inserting the 106th into a sector which had been quiet had merit for the reasons stated, it was a flawed conclusion that ultimately led to the destruction of the unit because the friendly forces could not insure that enemy activity would not occur in force. Secondly, when new units are introduced to the combat zone, they must have the flexibility to respond to their immediate environment in a manner appropriate to their previous training and which must be in consonance with existing doctrine and strategy in the area of operations.

Training was a major weakness in the 106th and it showed in combat, but an even greater deficiency appears to have been the lack of understanding of the nature of warfare in Europe and in particular, an appreciation of the role technology plays on a modern battlefield, especially in a highly fluid environment. This problem is demonstrated in the almost total breakdown in communications, for it was here that the Division Commander was deprived of effective and timely command and control of his units, particularly the two regiments trapped on the Schnee Eifel.

Upon moving into the previous 2d Division positions, the 106th inherited their land line communications systems, so in all fairness to the 106th, it must be pointed out that a lack of redundancy in those communications capabilities can be partly laid on the leadership of that unit. Specifically, wire and cable runs were not separated

to insure survivability of the circuit, as was customary, but were run together along the same path. On the other hand, 106th personnel made little or no effort to correct these shortcomings. When the fighting began, communication was easily disrupted. While it may be that these shortcomings would have eventually been corrected, the proximity of known enemy forces should have dictated that the survivability of the communications network be given top priority. However, the troops of the 106th Division were preoccupied with making their area livable because of their poor condition. In addition the man for man relief ordered by Corps limited the Division Commander's perogatives and initiative in assessing and changing his positions and installations.

Another critical point dealing with the application technology, had to do with the amount of modern equipment a division required to conduct its operations. This was particularly true in the area of communications and automatic weapons. Notwithstanding the importance of additional automatic weapons, it was the inadequacy of communications that contributed most to the disintegration of the The 2d Division, for instance, as a result of scrounging and utilization of captured enemy materiel, possessed a large amount of equipment that the 106th did not have. This included German sound-powered telephones, of which the 2d Division had captured quite a few. The 2d Division took these with them upon their departure. One officer, writing about this issue in regard communications equipment in infantry divisions during World War II, made the point that in his division:

The first few days of combat showed us that adequate communications required and demanded by the commanders of all echelons could not be provided by the personnel and equipment authorized by existing Table of Organization and Equipment....

This was true in all communication units from infantry battalions on up. Increased allotments of vehicles and signal equipment were secured from the Army Signal Supply.

Additional help for the communication platoons and division signal company was obtained from the rifle companies under the authority of the division commander. 16

The primary pieces of additional signal equipment which infantry divisions needed were radios, such as the SCR 536 and SCR 300 series, and switchboards of various types, all of which are long outdated today. The technology explosion which has taken place on the modern battlefield however, dictates that we take a close look at such examples as the communications problems in the 106th Division and compare them to the even more complex communications and technology issues confronting today's division commanders. No longer is the issue one of providing only terrestrial communications. demonstrated in the Gulf War, there is now an added dimension of planning for space systems to influence the outcome of terrestrial conflicts. Advanced technology such as Global Positioning Satellites (GPS) and GPS receiver terminals for instance, have become key elements among any division's communications assets and in any future conflicts, their use will have to be incorporated into all aspects of

planning, doctrine and strategy. This is but one area of technology where planners must plan for the rapid evolution and use on the battlefield during combat and transfer these lessons to later deploying units through training as well as organizational changes.

If one accepts the fact that the first few days of combat were crucial to the education of new divisions going into the line when assessing their communications capabilities, the same assumption could also be made in a host of other areas. It was just the bad luck of the 106th Division that their first few days of combat would see them pitted against such overwhelming odds as to allow no opportunity for lessons to be assimilated and improvements made throughout the division as a result of these experiences. Given the increased momentum of today's battlefield, it is obvious that divisions will continue to be similarly affected and units cannot expect to have adequate time to absorb all lessons learned. With the current plans in number of U.S. military personnel, the for reduction the possibility is greater than ever before, that any unit deploying against an enemy will find itself grossly outnumbered. It therefore becomes all the more imperative that units be given every opportunity for tough, realistic training prior to their introduction to any combat zone. The opportunity to build on lessons learned after deployment will not exist due to the increased tempo of warfare. In short, as the speed of combat increases, the less opportunity war fighters will have to learn from their errors once committed.

The most extreme example of the breakdown in communications in

106th Division however, can be seen in the futile efforts of the the division headquarters to coordinate actions with the 422d and Regiments once they were effectively cut off and surrounded. realized their predicament as early as the morning of the second day, both regimental commanders desperately needed to coordinate actions with the division commander. Unfortunately, all land line communications had been cut and radio traffic could not be passed, except with the greatest difficulty. When the 422d regimental commander finally received a message on the second day of the fighting, advising him of an air drop that night, it was the first message he had received from the division commander in over twentyfour hours and it came over the division artillery radio net because the direct radio link between the regimental command post and division headquarters was out. When the air drop did not occur, the division headquarters was not able to get back in touch with the regiments the Schnee Eifel to advise them of the change in a timely manner.

This delay in message transmission or lack thereof, was extremely critical in affecting the 422d and 423d Regimental Commanders' decision making process for it deprived them of badly needed information and the ability to coordinate. An example of this problem was a second message from Jones on Sunday, advising the 422d and 423d that he expected to receive reinforcements in minutes and intended "...clear out areas west of you this afternoon with reinforcements"
This message was sent at 0945 and when it arrived at 422d six hours later, Jones had still not received the reinforcements he expected, but this change in the situation could not be communicated to the regimental commanders.

What caused these communications problems? It can be argued that a lack of equipment and redundancy were the culprits. But Captain Alan W. Jones, Jr., later writing of his personal experiences as a Battalion Operations Officer in the 423d Infantry Regiment, noted that although radios had been issued to all elements during their brief stay in England, radio operators were untrained because a radio silence had been imposed on the units. Consequently, the operators had no opportunity for proper testing and calibration of their equipment. 18 The not so subtle point to be learned when reviewing the failure to incorporate the radio into the 106th's communications planning and training is not necessarily the prevention of training so much as the fact that radios represented a modern piece of equipment that was not fully appreciated or understood within the division. radio merely represents one technological advance of which there were others, that were not fully incorporated into the operational concepts and war fighting doctrine of the 106th Division. While such advances have long affected armies, the point is that the accelerated growth of technology today requires planners and trainers to be all the more sensitive to the issue of insuring that units going into combat not only have the latest technology a robust research and development base can provide, but that they have had the opportunity to become comfortable with the concepts and application of the new technology as it applies to the conditions under which they will be asked to fight.

Thus, when one surveys the extent of the communications failure throughout the 106th in a comprehensive manner, it becomes quite

apparent that there existed a much larger problem. The senior leadership in the division did not understand or appreciate the application and use of the latest communications technology in a highly fluid battlefield environment. Had the leadership had an appreciation for what this technology could do for them and how vital it could be in a combat environment, it is certain that means could have been found to properly train communications personnel. The Division Commander himself demonstrated his own lack of appreciation for wireless communications when Brigadier General Bruce C. Clarke, Commanding General of Combat Command B, 7th Armored Division, arrived at the 106th headquarters on the 17th and asked Jones to contact his two trapped regiments. Jones replied that they could not be contacted and added, "...as a matter of fact, in our training we haven't paid much attention to the use of radio." 19

The issue here however, is more than one of poor leadership. General Jones and his regimental commanders were potentially as well trained, if not better trained, than the leadership of most divisions deploying to Europe in 1944, given the fact that they had been with the division since its activation almost two years earlier. The real issue here is that lessons learned from the previous years of combat in the European Theater had not been captured and passed back to those units training in the states. Thus the leadership of the 106th Division had not focused on this critical aspect of what was for them the modern battlefield. And, the leadership directing the war effort had not provided for these changes to be conveyed to the later deploying units or validated an appropriate training program.

The implication from this lesson is of course that we not make a similar mistake in preparing forces for insertion in developed theaters in the future. Modern conflicts pose the possibility of being decided in even more rapid terms today than in World War II. It is therefore all the more imperative that national military authorities insure an ongoing, aggressive search for lessons learned and quickly incorporate these into training and doctrine. Above all, they must insure the training addresses the war being fought; evaluating unit performance. While the plethora of articles appearing in professional journals today suggest this is was in the case of Desert Storm, care must be taken to insure that the effort continues during active conflict as well. This will facilitate the integration of cadre divisions into the operational theater.

Before leaving the issue of technology and the related impact on training, it is essential to emphasize the lack of understanding and appreciation for lessons learned at the highest levels. Even if one accepts that contemporary technology was not fully appreciated by the leadership of the division and that the division was unlucky in not having adequate time to learn vital lessons, the question still remains as to why the lessons learned from the several previous years of combat in the European Theater were not incorporated in stateside training? This question cannot be answered without devoting more time and effort to researching the topic than is allowed here, but it suffices to say that there appears to have been a great difference between how units were trained in the states and how they had to operate in order to survive on the battlefield of Europe. This is a failure of national military leadership, not the division commander.

Further, this was well-known at the time. For example, take the communications failure in the 106th and compare that to what the communication officer of another infantry division operating in the same theater had to say after the war. He stated that, "The communicates used by the 104th Infantry Division---were not the type taught, practiced and perfected during the training periods and months of maneuvers. They were not the communications prescribed by the field manuals." The point here is that disparities between real combat and the training received by late deploying units cannot be tolerated. Units coming into a combat zone must be prepared as closely as possible for the realities they will face.

Although the division had been in the line only four days prior to being attacked, there was ample evidence along the front that the enemy was building up for some type of major operation. This strategic oversight by SHAEFT is a favorite point of discussion among historians. But the failure to recognize and react to intelligence indicators at the Corps and division levels further reinforces the need to recognize the special training and procedures required to integrate late deploying units. Because they were such a new unit, the 106th Division staff appears to have had a tendency to accept whatever the corps staff told them without question or further investigation. One such example is the division was reporting motor vehicle movement including track vehicles, along their front from the first night they were in the line.²¹ The VIII Corps staff refused to believe this information was significant and felt they should help steady their

newly arrived division. Thus, they dispatched an assistant G-2 to help the division staff settle in. That senior intelligence staff officers were not overly concerned is best displayed in the Weekly Intelligence Summary for the week ending 16 December 1944, wherein it was stated that the enemy offensive was possibly "...the opening of a major diversionary counter-attack..."

To understand why allied intelligence ignored the indications of a forthcoming attack when ample information was being reported by divisions such as the 106th, one has to understand the overall attitude that prevailed at the time. Because of the allied successes, many personnel had come to believe that Germany was beaten. The most significant factor which contributed indirectly to this attitude and directly to the intelligence failure was the success of ULTRA throughout the war. The senior leadership had come to rely heavily on it and when the Germans imposed strict communications security on their preparations for the Battle of the Bulge, allied intelligence refused to believe that any major operation was afoot because ULTRA did not indicate any such activities.

whatever the considerations for the interpretations of intelligence at higher levels, the impetus to collect and act on intelligence at the lower level seems to have been lacking. There was no systematic, aggressive patrolling and no strong emphasis to obtain information by capturing German soldiers, all routine for combat experienced units. In fact, the Assistant Executive Officer of the 422d Infantry Regiment, when interviewed on 7 January 1945, stated

that, "...most of the effort in the first few days after the regiment moved into the line was devoted toward making conditions more liveable rather than extensively reconnoitering positions, or sending out many patrols."²³ Thus it appears there was a common trend throughout the 106th Infantry Division to not emphasize intelligence gathering, probably because they had been told they were in a quiet sector and had nothing to worry about, but also because of a lack of experience and training. Specifically, the attitude conveyed to the personnel of 106th Division by the personnel of the 2d Division, was "...to tell each and all how lucky they were. It was a quiet sector, a little mortar and artillery fire, an occasional patrol, but that was all. A piece of cake."24 Obviously the average soldier had the impression that being in that section of the line offered an unusual degree of security---- the opposite of the reality. This offers a poignant lesson for future conflicts. When new divisions go into the combat zone, information as to the combat conditions must be passed. It is the role of leadership to insure the right information and lessons learned are transferred.

THE ROLE OF LEADERSHIP

The division's poor performance in its first engagement with the enemy is the responsibility of leadership. However, this responsibility cannot be limited to the division's leadership and must be shared by the corps commander as well. Three points which support this argument quite well are the method in which the 106th was

inserted into the battlefield, the lack of intelligence provided to the new division, and the relationship between the corps commander and the division commander.

As has already been mentioned, the division was directed by the Corps Commander to relieve the 2d Division man for man in hopes of keeping the movement of units a secret from the Germans. of course, that the division was deployed in accordance with the previous division commander's concept of tactical operations and not as envisioned by the new division commander who might have organized his defenses differently and certainly would have improved perceived deficiencies. While such guidance under the circumstances did not necessarily imply any lack of confidence on the part of the Corps Commander toward his Division Commander, it certainly restricted the subordinate commander and deprived him of the latitude to initiate improvements to the existing tactical deployment. A lesson to be drawn from this aspect of the insertion of the 106th is that senior commanders may have occasions when they need to issue specific quidance to their subordinates, but they should always take care to let the subordinate know that his judgement is valued and the conditions under which he may take corrective action.

The corps obviously had a great responsibility for providing accurate and timely intelligence to a new division going into the line, so any intelligence failure on the part of such a unit in the first few days, must be to a large degree, the responsibility of the higher headquarters. This is especially true in light of the fact

that the division had reported movement of vehicles to their front and the corps had obviously chosen to ignore the reports. This provides senior commanders with an extremely important lesson in dealing with new units. Never make assumptions. It cannot be assumed that a unit is reliable nor can it be assumed that just because it may have limited experience, as was the case of the 106th, it is unreliable. The personnel of new units going into the line should be listened to very carefully and when they report something amiss, the circumstances should receive serious investigation. The responsibility for assessing reliability and level of training is the superior commander's and process and procedures for establishing this must be thought through precisely.

The third area in which the Corps Commander was at fault was in his relationship with General Jones. In all command relationships, the senior member sets the tone. While it can be argued that Middleton and Jones did not have a bad relationship, neither did they appear to work well together, as is evidenced by their difficulty in coming to terms as to what course of action the 106th should pursue when the battle began.

The question which historians and survivors of the battle continue to struggle to answer is "how much of the blame should or can be placed on the Division Commander and his staff?" As a minimum, most people agree that General Jones did not perform well. For example, a review of his actions during the first two days of the battle indicate that he was at a loss as to what to do. He was

inclined to stay in his headquarters and apparently made no effort to get out and provide direct leadership for U.S. forces at a time when his leadership was critical. The question is important from the perspective of the analysis because it reveals the critical role of leadership in integrating major units into an active combat environment. This raises a provocative question————Was Jones' training and experience that of a Division Commander or a cadre trainer? The latter is a logical result of the training phase and appears to be the case.

There is striking contrast in Jones and the man he turned the defense of St. Vith over to in the second day of fighting. Brigadier General Bruce C. Clarke, realizing he had major problems in traffic control, found himself having to act as a traffic policeman at a primary road junction shortly after assuming command. By his presence, he was able to restore calm and sort out the tangled traffic moving through his area and he remained at this post until the arrival of the lead elements of the 7th Armored Division's CCB, which he personally directed to their deployment area. 25 Clarke functioned in the role of combat commander.

Although Jones' indecisiveness and inactivity cannot be explained completely, it was nevertheless noticeable and created a leadership vacuum in the first two days of the battle. Charles MacDonald, in his book, A Time For Trumpets, stated that Jones believed from the very beginning that the offensive was a major operation. If this is so, it is difficult to explain why he was so hesitant to commit his reserves at the critical moment in an

effort to save the two regiments that became trapped in the Schnee Eifel. If he did in fact think that the German assault was the start of a major offensive, his inactivity did not reflect this. Equally disturbing is the failure to communicate these convictions to his superiors.

The abrupt manner in which General Jones withdrew himself from command of the defense of St. Vinth and turned operations over to General Clarke are subjects for serious consideration. It has been argued that Jones was under more than average stress because his son was in one of the regiments trapped on the Schnee Eifel. However, it should be noted that Clarke had one less star and was junior to three other brigadier generals on the scene. There does not appear to be a rational reason why Jones chose to turn this command over to the junior Clarke other than that the latter displayed such an aggressive, take charge attitude that it made it easy for Jones to concede the leadership role to him. However, Jones may have felt more comfortable relinquishing his command to someone with recent combat experience. What is clear, is Jones took himself out of the primary leadership role early on the afternoon of only the second day of combat and apparently made no effort to assert himself in the decision making process after this, nor did those senior to Clark. This raises serious questions about how prepared the division's senior leaders were for the combat conditions they encountered.

Another incident which seems to indicate that General Jones was not a very strong leader, but also cast doubt on Middleton, especially when it came to coordination and reaching clear understandings in the

battlefield environment, occurred directly between Jones and on the evening of the sixteenth, Jones called Middleton. Late Middleton to discuss the possibility of pulling the 422d and 423d Regiments off the Schnee Eifel. While there is no clear record of what was said between the two generals, Middleton apparently advised Jones that he knew his own situation better than he, Middleton did. However, when Jones got off the phone, he told one of his staff that the Corps Commander wanted him to leave his regiments where they were. Later that same evening, Jones also saw an order from Middleton directing that there not be any withdrawals unless positions became untenable. What Jones may or may not have taken note of in that same order, was the fact that if units were withdrawn, they should be moved to the west bank of the Our River, a point well behind their current positions.²⁷ This latter instruction might have recognized by an experienced commander as the latitude to act if was too great. While it may remain unclear historically what the intentions of either commander may have been situation, it is clear that it is critical for senior commanders to insure that new commanders are properly introduced to the prevailing commander environment. Had Middleton fostered a relationship of openness and confidence with his subordinate commander, it is entirely possible the two of them would have understood each other better. this relationship did not exist, it was incumbent upon the corps commander to insure that he communicated clearly and concisely with his division commander. The relationship between the gaining commander and the deploying commander is critical and must be fully addressed in any CADRE Division concept.

Jones should have been considering at the time the fact that General Robertson, CG of the 2d Division, had briefed him and handed over a plan that called for withdrawing the two regimental combat teams in the Schnee Eifel and freeing one combat team for a counter attack, should the enemy push through the Losheim Gap. 28 If this was the case however, there is no record of him making mention of it, but it certainly was the type of plan Jones should have initiated immediately upon notification that the enemy was threatening that sensitive area in force. The newly arrived cavalry commander, Colonel Mark A. Devine, Jr., had gone to the 106th Division headquarters shortly after taking over his command to verify the continued existence of this plan. According to one source however, Jones and his staff were too busy with other matters of settling the division in, be bothered with planning for future counter attacks. 29 Jones may have felt torn between his feelings of knowing he should have implemented the existing plans left him by the 2d Division and knowing he had not planned for the defense of his northern flank! The fact that the 2d Division had drawn up a counterattack plan also explains why Middleton did not immediately react to provide Jones with guidance in planning his defenses. He knew Jones had inherited plans from the 2d Division and like any prudent officer, probably assumed Jones would execute them at the propitious moment. It does not, however, explain why Jones did not coordinate with his Corps Commander on possibility of implementing his existing counter-attack plan.

Several valuable lessons can be learned here. The first lesson is that senior headquarters must not only insure that adequate plans are passed on to new units coming into the combat zone to replace existing units, but must take care to see that new units understand those plans. Secondly, and directly related to the first lesson, is that new commanders must give immediate attention to these plans and activities that foremost guarantee the very survival of their units.

Colonel Devine would also know the fustration of waiting for and not receiving guidance from the Division Commander again on the night of the first day of combat. On this occasion, he went to the Division Headquarters to request guidance from the Division Commander, only to be told by Jones that he was too busy with other matters to talk to him, but that if he waited, Jones would get to him as soon as could. It is obvious that pandemonium often rules headquarters in the early hours of combat, but Jones and his staff were particularly disorganized as a result of their lack of intelligence, and, when communications with their regiments proved so difficult, much of the early part of the battle was spent trying to get an accurate picture of the battlefield. After waiting until daylight, still without speaking to Jones, Devine went back to his unit! One might deduce from this that Jones' relationship with his subordinates was also questionable. Whatever the reasons, it is clear that the Division Commander did not provide clear directions to any of his commanders during the two days of the battle when he was in command.

Jones' indecision in moving his two regiments may be understandable to some degree as a new subordinate anxious to please

his superiors and because Jones did not know Middleton well at the time. However, his poor communication with his two regimental commanders is more difficult to understand because they had trained together for almost two years. This paper has already pointed out the glaring communications deficiencies which existed in the Division, but this suggests a communications failure of a different type. Neither of the regimental commanders trapped with their units appears to have had any idea as to their division commander's intent or how he would fight the battle and both of them proved to be indecisive themselves. When all else failed and they had to fall back their resourcefulness, their solution was to surrender their regiments along with supporting units after only four days of combat. Many soldiers, like Arthur Kleppinger of the 422d Infantry Regiment, never saw an enemy soldier until they were surrendered and understandably wanted a chance to fight rather than surrender. 30 The failure of the chain of command to function under stress denied Kleppinger and his fellow soldiers their proper role and threatened the security of the entire sector. This failure to achieve leadership cohesion at the commander level was critical and should have been revealed in the training and evaluation process prior to deployment. As a minimum, it should have been recognized by the corps. suggests the chain of command had focused on training issues cadre process and not on their own combat skills as commanders and staffs.

CONCLUSION

The decision to adopt a CADRE model for late deploying units will undoubtedly hinge on resourcing and force structure considerations. There are infinite possibilities in regard to: types of units; the percentage of CADRE and equipment fill; timing and sources of personnel and equipment for full unit strength; and, theaters of deployment. These are all difficult to resolve for planners but the analysis of the 106th Division offers some different and enduring insights into the CADRE concept and the deployment of these units to combat theaters. Among these are:

- CADRE divisions will require extensive training time to insure adequate training and development of cohesive teams at all echelons of performance and leadership.
- O Units must be trained in such a manner so that they can be integrated into the theater's "operating" doctrine and tactics and equipped to do so.
- O Combat lessons learned and combat innovations must be integrated on a continuing basis into the training programs of later deploying units.
- O Training must be evaluated throughout the formation and deployment period at all levels within the unit.
- O Command and Staff functions must be made special areas of interest in training and evaluation. All levels of performance must be fully evaluated.

- O CADRE units must be kept at the same doctrinal and technological level as the fully supported units.
- O Movement to the combat zone must be planned and coordinated to insure units arrive in total and combat effective. CADRE must be trained to facilitate this process.
- Gaining commands must recognize the special issues associated with integrating new units and insure the necessary special preparation and attention are given.

 Instructions must be explicit and authorized deviations made clear.
- O The relationship between commanders is a critical aspect of integration and can be facilitated by early interface, clear communication and additional initial oversight.
- O Nothing can be dismissed as routine or over reactive during the period of integration.
- O Personal policies must be structured to sustain team/unit stability.
- The issues associated with fielding CADRE units are interrelated and compound one another. The process must be seen as a whole and approached from that perspective.

If CADRE divisions are utilized in the future, much can be learned from analysis of the World War II experience. This paper highlights and illustrates major issues that emerge from an analysis of only one division. It does not answer the more complex question of

specifically how to overcome these problems. However, it does make clear that deployment and integration into combat theaters of CADRE divisions is infinitely more complex than designing a unit model to facilitate current manpower and resource shortfalls.

ENDNOTES

- 1. Hugh N. Cole, <u>U.S. Army in World War II</u>, <u>European Theater Of Operations</u>, <u>The Ardennes: Battle of the Bulge</u> (Washington, DC: Government Printing Office, 1965), 170.
- 2. Military History Institute, Alan W. Jones Papers, Memorandum 23 January 1943.
- 3. Cole, 140.
- 4. Charles Whiting, <u>Death of a Division</u> (New York: Stein and Day, 1981), 14.
- 5. Charles B. MacDonald, <u>A Time For Trumpets</u> (New York: William Morrow and Company, Inc., 1985), 116.
- 6. Robert R. Palmer, Bell I Wiley, and William R. Keast, <u>The Army Ground Forces: The Procurement and Training of Ground Combat Troops</u> (Washington, DC: Government Printing Office, 1948), 484.
- 7. Ibid., 472.
- 8. Ibid., Table No. 4, 480-481.
- 9. Military History Institute, <u>Charles B. MacDonald Papers</u>, "Brief History of 106TH Infantry Division," 2.
- 10. Palmer, Wiley, and Keast, 474.
- 11. Ibid.
- 12. Leroy Strong Interview by Author, Carlisle Barracks, PA, 18 February 1992.
- 13. <u>MacDonald Papers</u>, "Interview with Major Douglas E. Post," 7 January 1947, 1.
- 14. Ibid., 2.
- 15. John Sloan Brown, <u>Draftee Division</u> (Lexington: The University Press of Kentucky, 1986), 154.
- 16. Ralph E. Willey, "Combat Communications," <u>Infantry Journal</u>, September 1946, 28.
- 17. Whiting, 54.
- 18. <u>MacDonald Papers</u> Alan Jones, Jr., "Advanced Infantry Officers Course Paper," p. 8.

- 19. John S. D. Eisenhower, <u>The Bitter Woods</u> (New York: G. P. Putnam's Sons, 1969), 228.
- 20. Willey, 28.
- 21. Alan Jones Papers, "Report of Enemy Action Against 106TH Infantry Divsion," 11 Dec to 31 Dec 1944, p. 1.
- 22. Military History Institute, <u>Weekly Intelligence Summary, No. 19, For Week Ending 16 Dec 1945, Headquarters Twelfth Army Group</u>, p. 3.
- 23. Interview with Post, 7 January 1945, p. 2.
- 24. MacDonald, 117.
- 25. Eisenhower, 233-234.
- 26. MacDonald, 125.
- 27. Ibid., 129.
- 28. Cole, 140.
- 29. MacDonald, 108.
- 30. Military History Institute, World War II Survey, Arthur Kleppinger, 2.

BIBLIOGRAPHY

- Ambrose, Stephen E. <u>Eisenhower</u>, <u>Vol. One</u>, <u>Soldier General of the Army President Elect 1890-1952</u>. New York: Simon and Schuster, Inc., 1983.
- Bradley, Omar N. <u>A Soldier's Story</u>. New York: Henry Holt and Co., 1951.
- Brown, John Sloan. <u>Draftee Division</u>. Lexington, Kentucky: The University Press of Kentucky, 1986.
- Cole, Hugh M. <u>U.S. Army in World War II, European Theater of Operations, The Ardennes: Battle of the Bulge</u>, Washington, DC Government Printing Office, 1965.
- Dupuy, Ernest R. St. Vith Lion in the Way. Washington, DC: Infantry Journal Press, 1949.
- Eisenhower, John S. D. <u>The Bitter Woods</u>. New York: G. P. Putnam's Sons, 1969.
- Heller, Charles B. "A Cadre System for the U.S. Army." <u>Military Review</u> (October 1991): 14-24
- MacDonald, Charles B. A Time for Trumpets. New York: William Morrow and Company, Inc., 1985.
- . The Mighty Endeavor. New York: Oxford University Press, 1969.
- Military History Institute. Charles B. MacDonald Papers.
- Military History Institute. Alan W. Jones Papers.

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- Palmer, Robert T., Bell I. Wiley, and William R. Keast. <u>The Procurement and Training of Ground Combat Troops</u>. <u>U.S. Army in World War II</u>. Washington, DC, 1948.
- Weigley, Russell F. <u>Eisenhower's Lieutenants</u>. Bloomington: Indiana University Press, 1981.
- Whiting, Charles. <u>Death of a Division</u>. New York: Stein and Day, 1981.
 - . Decision At St. Vith. New York: Ballantine Books, Inc., 1969.
 - Willey, Ralph E. "Combat Communications." <u>Infantry Journal</u> (September 1946) 28-31.